

Chapter 6

Sustainable Cinema: The Moving Image and the Forces of Nature

Scott Hessels
City University, Hong Kong

ABSTRACT

While nature has often inspired art, a subset of artists has given the natural world an even more influential role in the outcome of their work. These artists have harnessed the physics, biology, and ecology of the natural environment as artistic tools and have used natural phenomena as a co-creator in the realization of their work. This use of natural force impacting the actual form of an artwork has also been explored in the kinetic and moving image arts. As one of several artists now working in sustainable energy, the author of this chapter has created a series of kinetic public sculptures that use natural power sources to create the moving image. These sculptures will be presented here as a case study for a larger perspective on the continuing relationship between the forces of nature and the materials of the moving image.

INTRODUCTION

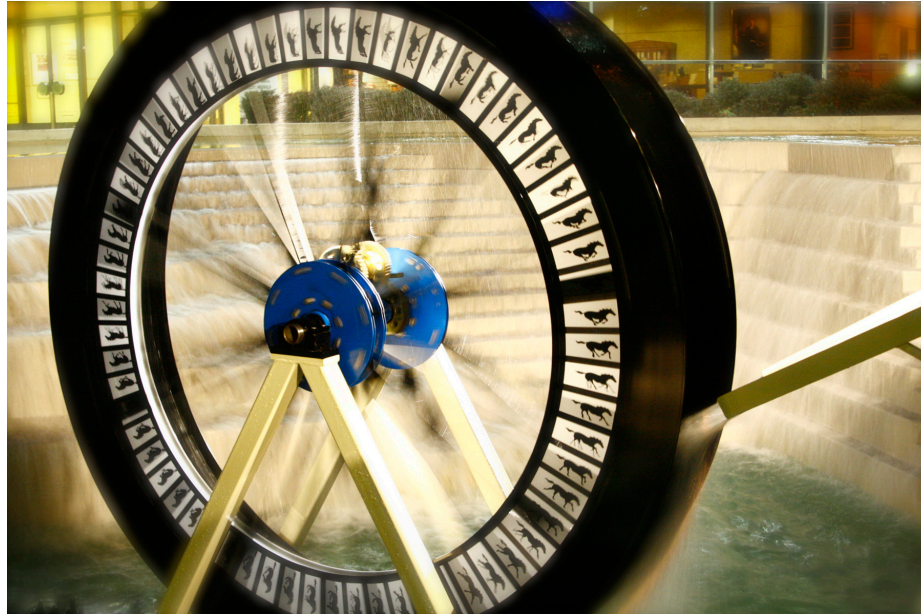
The organic origins in art forms like painting and sculpture are easily recognized when one considers the ancient mixing of colored pigments found in nature, and the wood and stone chiseled by early sculptors. Musical forms, drawing and theatre share this foundation as many of their first materials came from plants and animals. The moving image, including the mediated versions of cinema and computer forms, also has traceable

roots in the natural environment yet in a less obvious and inimitable way. Through tools and materials alone, nature has directly affected the outcome of nearly all creative expression.

Kinetic sculpture is a time-based, often narrative art form and its 'moving image' is its changing shape, dimension, light, materiality, site, *etc.* As art forms that can be watched over time, cinema and kinetic sculpture share a unique perceptual connection. In addition, while all art forms reflect the society of their times, both the picture and the sculptural versions of the moving image are often used to directly comment on their context

DOI: 10.4018/978-1-4666-0942-6.ch006

Figure 1. Scott Hessels, “The Image Mill” at night, Gerald R. Ford Presidential Museum, Grand Rapids, Michigan. (© 2010 Scott Hessels. Used with permission.).



and physical presence. More than many other types of artistic expression, it seems cinema and moving three-dimensional art are by design highly self-aware of their contexts. Because of this, when one considers society's changing views on nature over the past two hundred years, a thread of artworks becomes evident that shares and envisions those views.

This chapter presents a series of my sculptures that use natural power to generate the moving image. As background to these artworks, I will look at society's changing relationship with forces in nature and how other artists have mirrored those relationships. These artists embraced the natural and organic beginnings of their mediums and allowed natural energy to write upon their works as a co-author. When placed parallel with the evolving global perspectives on the natural environment, a relationship emerges that creates a deeper context for the artworks and a clearer understanding of cultural views on nature.

BACKGROUND

Physics, biology, ecology and now sustainable design have all played into the moving image evolution. The optical illusions and electricity that led to the birth of the mediated moving image were seen as natural phenomena harnessed or recreated by man. Shadows plays, one of the earliest media presentation systems, were made from biological skins and fibers, and early moving images were often spoken of as being infused with a living force. The first screens were silk, celluloid itself was made from plants and animals. In the last mid-century, sculpture began to reflect and use the concepts of ecology that were emerging in society at the time by using natural systems integrally in their time-based, environmentally-conscious artworks.

Over the past two centuries, we have greatly advanced our comprehension of physics, biology and ecosystems. Now we hope use the forces found nature in ways that do not diminish them yet still benefit us. Once again the moving image

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